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PAGE: 1

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/347,064

DATE: 07/19/1999  
TIME: 12:27:53

Input Set: I347064.RAW

This Raw Listing contains the General Information  
Section and up to first 5 pages.

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1  <110> APPLICANT: Eck, Jurgen
2      Schmidt, Arno
3      Zinke, Holger
4  <120> TITLE OF INVENTION: Recombinant Fusion Proteins Based on
5      Ribosome-Inactivating Proteins of the mistletoe Viscum
6      album
7  <130> FILE REFERENCE: 09282-5
8  <140> CURRENT APPLICATION NUMBER: US/09/347,064
9  <141> CURRENT FILING DATE: 1999-07-02
10 <150> EARLIER APPLICATION NUMBER: PCT/EP98/00009
11 <151> EARLIER FILING DATE: 1998-01-02
12 <150> EARLIER APPLICATION NUMBER: EP 97 10 0012.0
13 <151> EARLIER FILING DATE: 1997-01-02
14 <160> NUMBER OF SEQ ID NOS: 38
15 <170> SOFTWARE: PatentIn Ver. 2.0
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17 <211> LENGTH: 762
18 <212> TYPE: DNA
19 <213> ORGANISM: Viscum album
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23      ctcttgcgtc agtctacgat ccccgctctcc gatgcgcaaa gatttgtctt ggtggagctc 180
24      accaaccagg ggggagactc gatcacggcc gccatcgacg ttaccaatct gtacgtcgtg 240
25      gcttaccaag caggcgacca atcctacttt ttgcgcgacg caccacgcgg cgcggaaacg 300
26      catctcttca ccggcaccac ccgatcctct ctcccattca acggaagcta ccctgatctg 360
27      gagcgatacg ccggacatag ggaccagatc cctctcggtg tagaccaact cattcaatcc 420
28      gtcacggcgc ttcgttttcc gggcggcagc acgcgtaccc aagctcgttc gattttaatc 480
29      ctcattcaga tgatctccga ggccgccaga ttcaatccca tcttatggag ggctcgccaa 540
30      tacattaaca gtggggcgtc atttctgcca gacgtgtaca tgctggagct ggagacgagt 600
31      tggggccaac aatccacgca agtccagcat tcaaccgatg gcgtttttaa taacccaatt 660
32      cggttggtca tcccccccg taacttcgtg acgttgacca atgttcgcga cgtgatcgcc 720
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35 <211> LENGTH: 252
36 <212> TYPE: PRT
37 <213> ORGANISM: Viscum album
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41      Glu Tyr Phe Arg Phe Ile Thr Leu Leu Arg Asp Tyr Val Ser Ser Gly
42      20           25           30
43      Ser Phe Ser Asn Glu Ile Pro Leu Leu Arg Gln Ser Thr Ile Pro Val
44      35           40           45

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PAGE: 2

**RAW SEQUENCE LISTING**  
**PATENT APPLICATION US/09/347,064**

 DATE: 07/19/1999  
 TIME: 12:27:53

Input Set: I347064.RAW

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45      Ser Asp Ala Gln Arg Phe Val Leu Val Glu Leu Thr Asn Gln Gly Gly
46          50                      55                      60
47      Asp Ser Ile Thr Ala Ala Ile Asp Val Thr Asn Leu Tyr Val Val Ala
48          65                      70                      75                      80
49      Tyr Gln Ala Gly Asp Gln Ser Tyr Phe Leu Arg Asp Ala Pro Arg Gly
50          85                      90                      95
51      Ala Glu Thr His Leu Phe Thr Gly Thr Thr Arg Ser Ser Leu Pro Phe
52          100                     105                     110
53      Asn Gly Ser Tyr Pro Asp Leu Glu Arg Tyr Ala Gly His Arg Asp Gln
54          115                     120                     125
55      Ile Pro Leu Gly Ile Asp Gln Leu Ile Gln Ser Val Thr Ala Leu Arg
56          130                     135                     140
57      Phe Pro Gly Gly Ser Thr Arg Thr Gln Ala Arg Ser Ile Leu Ile Leu
58          145                     150                     155                     160
59      Ile Gln Met Ile Ser Glu Ala Ala Arg Phe Asn Pro Ile Leu Trp Arg
60          165                     170                     175
61      Ala Arg Gln Tyr Ile Asn Ser Gly Ala Ser Phe Leu Pro Asp Val Tyr
62          180                     185                     190
63      Met Leu Glu Leu Glu Thr Ser Trp Gly Gln Gln Ser Thr Gln Val Gln
64          195                     200                     205
65      His Ser Thr Asp Gly Val Phe Asn Asn Pro Ile Arg Leu Ala Ile Pro
66          210                     215                     220
67      Pro Gly Asn Phe Val Thr Leu Thr Asn Val Arg Asp Val Ile Ala Ser
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78      cagttgtggc cctccaagtc caacaatgat ccgaatcagt tgtggacgat caaaagggat 180
79      ggaaccattc gatccaatgg cagctgcttg accacgtatg gctatactgc tggcgtctat 240
80      gtgatgatct tcgactgtaa tactgctgtg cgggaggcca ctctttggca gatatggggc 300
81      aatgggacca tcatcaatcc aagatccaat ctggttttgg cagcatcatc tggaatcaaa 360
82      ggcactacgc ttacggtgca aacactggat tacacgttgg gacagggctg gcttgccggg 420
83      aatgataccg cccacgcga ggtgaccata tatgggttca gggaccttg catggaatca 480
84      aatggaggga gtgtgtgggt ggagacgtgc gtgagtagcc aaaagaacca aagatgggct 540
85      ttgtacggg atggttctat acgccccaaa caaaaccaag accaatgcct cacctgtggg 600
86      agagactccg tttcaacagt aatcaatata gttagctgca gcgctggatc gtctgggcag 660
87      cgatgggtgt ttaccaatga aggggccatt ttgaatttaa agaattgggt ggccatggat 720
88      gtggcgcaag caaatcaaaa gctccgccga ataatcatct atcctgccac aggaaaacca 780
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92      <212> TYPE: PRT
93      <213> ORGANISM: Viscum album
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PAGE: 3

**RAW SEQUENCE LISTING**  
**PATENT APPLICATION US/09/347,064**

 DATE: 07/19/1999  
 TIME: 12:27:53

Input Set: I347064.RAW

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95   Asp Asp Val Thr Cys Ser Ala Ser Glu Pro Thr Val Arg Ile Val Gly
96       1           5           10           15
97   Arg Asn Gly Met Cys Val Asp Val Arg Asp Asp Asp Phe Arg Asp Gly
98           20           25           30
99   Asn Gln Ile Gln Leu Trp Pro Ser Lys Ser Asn Asn Asp Pro Asn Gln
100       35           40           45
101   Leu Trp Thr Ile Lys Arg Asp Gly Thr Ile Arg Ser Asn Gly Ser Cys
102       50           55           60
103   Leu Thr Thr Tyr Gly Tyr Thr Ala Gly Val Tyr Val Met Ile Phe Asp
104       65           70           75           80
105   Cys Asn Thr Ala Val Arg Glu Ala Thr Leu Trp Gln Ile Trp Gly Asn
106           85           90           95
107   Gly Thr Ile Ile Asn Pro Arg Ser Asn Leu Val Leu Ala Ala Ser Ser
108           100          105          110
109   Gly Ile Lys Gly Thr Thr Leu Thr Val Gln Thr Leu Asp Tyr Thr Leu
110           115          120          125
111   Gly Gln Gly Trp Leu Ala Gly Asn Asp Thr Ala Pro Arg Glu Val Thr
112           130          135          140
113   Ile Tyr Gly Phe Arg Asp Leu Cys Met Glu Ser Asn Gly Gly Ser Val
114       145          150          155          160
115   Trp Val Glu Thr Cys Val Ser Ser Gln Lys Asn Gln Arg Trp Ala Leu
116           165          170          175
117   Tyr Gly Asp Gly Ser Ile Arg Pro Lys Gln Asn Gln Asp Gln Cys Leu
118           180          185          190
119   Thr Cys Gly Arg Asp Ser Val Ser Thr Val Ile Asn Ile Val Ser Cys
120           195          200          205
121   Ser Ala Gly Ser Ser Gly Gln Arg Trp Val Phe Thr Asn Glu Gly Ala
122       210          215          220
123   Ile Leu Asn Leu Lys Asn Gly Leu Ala Met Asp Val Ala Gln Ala Asn
124       225          230          235          240
125   Pro Lys Leu Arg Arg Ile Ile Ile Tyr Pro Ala Thr Gly Lys Pro Asn
126           245          250          255
127   Gln Met Trp Leu Pro Val Pro Gly Gly Tyr His
128           260          265
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130 <211> LENGTH: 72
131 <212> TYPE: DNA
132 <213> ORGANISM: Viscum album
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135   gatgttacat gt 72
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137 <211> LENGTH: 17
138 <212> TYPE: PRT
139 <213> ORGANISM: Viscum album
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143   Ala
144 <210> SEQ ID NO 7

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PAGE: 4

**RAW SEQUENCE LISTING**  
**PATENT APPLICATION US/09/347,064**

DATE: 07/19/1999  
TIME: 12:27:53

Input Set: I347064.RAW

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150   atcacgcttc tccgagatta tgtctcaagc ggaagctttt ccaatgagat accactcttg 120
151   cgtcagtcta cgatccccgt ctccgatgcg caaagatttg tcttggtgga gctcaccaac 180
152   caggggggag actcgatcac ggccgccatc gacgttacca atctgtacgt cgtgggttac 240
153   caagcaggcg accaatccta ctttttgcg cagcgaccac gcggcgcgga aacgcatttc 300
154   ttcaccggca ccaccgatc ctctctcca ttcaacggaa gctaccctga tctggagcga 360
155   tacgccggac atagggacca gatccctctc ggtatagacc aactcattca atccgtcacg 420
156   gcgcttcggt tttccggcg cagcacgcgt acccaagctc gttcgatttt aatcctcatt 480
157   cagatgatct ccgaggccgc cagattcaat cccatcttat ggagggtctg ccaatacatt 540
158   aacagtgggg cgtcatttct gccagacgtg tacatgctgg agctggagac gagttggggc 600
159   caacaatcca cgcaagtcca gcattcaacc gatggcggtt ttaataaacc aattcggttg 660
160   gctatacccc ccggtaaact cgtgacgttg accaatgttc gcgacgtgat cgccagcttg 720
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163 <211> LENGTH: 252
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165 <213> ORGANISM: Viscum album
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168       1             5             10             15
169   Tyr Phe Arg Phe Ile Thr Leu Leu Arg Asp Tyr Val Ser Ser Gly Ser
170             20             25             30
171   Phe Ser Asn Glu Ile Pro Leu Leu Arg Gln Ser Thr Ile Pro Val Ser
172             35             40             45
173   Asp Ala Gln Arg Phe Val Leu Val Glu Leu Thr Asn Gln Gly Gly Asp
174             50             55             60
175   Ser Ile Thr Ala Ala Ile Asp Val Thr Asn Leu Tyr Val Val Ala Tyr
176             65             70             75             80
177   Gln Ala Gly Asp Gln Ser Tyr Phe Leu Arg Asp Ala Pro Arg Gly Ala
178             85             90             95
179   Glu Thr His Leu Phe Thr Gly Thr Thr Arg Ser Ser Leu Pro Phe Asn
180             100            105            110
181   Gly Ser Tyr Pro Asp Leu Glu Arg Tyr Ala Gly His Arg Asp Gln Ile
182             115            120            125
183   Pro Leu Gly Ile Asp Gln Leu Ile Gln Ser Val Thr Ala Leu Arg Phe
184             130            135            140
185   Pro Gly Gly Ser Thr Arg Thr Gln Ala Arg Ser Ile Leu Ile Leu Ile
186             145            150            155            160
187   Gln Met Ile Ser Glu Ala Ala Arg Phe Asn Pro Ile Leu Trp Arg Ala
188             165            170            175
189   Arg Gln Tyr Ile Asn Ser Gly Ala Ser Phe Leu Pro Asp Val Tyr Met
190             180            185            190
191   Leu Glu Leu Glu Thr Ser Trp Gly Gln Gln Ser Thr Gln Val Gln His
192             195            200            205
193   Ser Thr Asp Gly Val Phe Asn Asn Pro Ile Arg Leu Ala Ile Pro Pro
194             210            215            220

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## OIEP

PAGE: 5

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/347,064DATE: 07/19/1999  
TIME: 12:27:53

Input Set: I347064.RAW

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195      Gly Asn Phe Val Thr Leu Thr Asn Val Arg Asp Val Ile Ala Ser Leu
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205      tgcgtggacg tccgagatga cgatttcgcg gatggaaatc agatacagtt gtggccctcc 120
206      aagtccaaca atgatccgaa tcagttgttg acgatcaaaa gggatggaac cattcgatcc 180
207      aatggcagct gcttgaccac gtatggctat actgctggcg tctatgtgat gatcttcgac 240
208      tgtaatactg ctgtgcggga ggccactctt tggcagatat ggggcaatgg gaccatcatc 300
209      aatccaagat ccaatctggt tttggcagca tcatctggaa tcaaaggcac tacgcttacg 360
210      gtgcaaacac tggattacac gttgggacag ggctggcttg ccggtaatga taccgcccc 420
211      cgcgagggtga ccatatatgg gttcagggac ctttgcatgg aatcaaattg agggagtgtg 480
212      tgggtggaga cgtgcgtgag tagccaaaag aaccaaagat gggctttgta cggggatgg 540
213      tctatacgcc ccaaacaaaa ccaagaccaa tgcctcacct gtgggagaga ctccgtttca 600
214      acagtaatca atatatgttag ctgcagcgct ggatcgtctg ggcagcgatg ggtgtttacc 660
215      aatgaagggg ccattttgaa tttaaagaat gggttggcca tggatgtggc gcaagcaaat 720
216      ccaaagctcc gccgaataat catctatcct gccacaggaa aaccaaataa aatgtggctt 780
217      cccgtgcca
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221 <213> ORGANISM: Viscum album
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225      Arg Asn Gly Met Cys Val Asp Val Arg Asp Asp Asp Phe Arg Asp Gly
226                20                25                30
227      Asn Gln Ile Gln Leu Trp Pro Ser Lys Ser Asn Asn Asp Pro Asn Gln
228                35                40                45
229      Leu Trp Thr Ile Lys Arg Asp Gly Thr Ile Arg Ser Asn Gly Ser Cys
230                50                55                60
231      Leu Thr Thr Tyr Gly Tyr Thr Ala Gly Val Tyr Val Met Ile Phe Asp
232                65                70                75                80
233      Cys Asn Thr Ala Val Arg Glu Ala Thr Leu Trp Gln Ile Trp Gly Asn
234                85                90                95
235      Gly Thr Ile Ile Asn Pro Arg Ser Asn Leu Val Leu Ala Ala Ser Ser
236                100                105                110
237      Gly Ile Lys Gly Thr Thr Leu Thr Val Gln Thr Leu Asp Tyr Thr Leu
238                115                120                125
239      Gly Gln Gly Trp Leu Ala Gly Asn Asp Thr Ala Pro Arg Glu Val Thr
240                130                135                140
241      Ile Tyr Gly Phe Arg Asp Leu Cys Met Glu Ser Asn Gly Gly Ser Val
242                145                150                155                160
243      Trp Val Glu Thr Cys Val Ser Ser Gln Lys Asn Gln Arg Trp Ala Leu
244                165                170                175

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PAGE: 6

VERIFICATION SUMMARY  
PATENT APPLICATION US/09/347,064

DATE: 07/19/1999  
TIME: 12:27:53

Input Set: I347064.RAW

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